

outward at a vertex portion by a distance  $d$ , subsequently extends toward the second slot **52** circumferentially at a reverse angle of inclination  $\theta$ , and is linked to a third rectilinear portion **10c** in a seventh layer from the slot opening side of the second slot **52**. Next, a third coil end portion **10g** that extends outward at the second axial end from the third rectilinear portion **10c** in the seventh layer from the slot opening side of the second slot **52** extends toward the third slot **53** circumferentially at an angle of inclination  $\theta$ , is shifted radially outward at a vertex portion by a distance  $d$ , subsequently extends toward the third slot **53** circumferentially at a reverse angle of inclination  $\theta$ , and is linked to a fourth rectilinear portion **10d** in an eighth layer (a radially outermost position) from the slot opening side of the third slot **53**.

[0043] Thus, the first rectilinear portion **10a** in the first layer of the second slot **52** and the second rectilinear portion **10b** in the second layer of the first slot **51** are linked by the first coil end portion **10e**, the second rectilinear portion **10b** in the second layer of the first slot **51** and the third rectilinear portion **10c** in the third layer of the second slot **52** are linked by the second coil end portion **10f**, and the third rectilinear portion **10c** in the third layer of the second slot **52** and the fourth rectilinear portion **10d** in the fourth layer of the third slot **53** are linked by the third coil end portion **10g**, to constitute a 6-shaped coil pattern.

[0044] In addition, the first rectilinear portion **10a** in the fifth layer of the second slot **52** and the second rectilinear portion **10b** in the sixth layer of the first slot **51** are linked by the first coil end portion **10e**, the second rectilinear portion **10b** in the sixth layer of the first slot **51** and the third rectilinear portion **10c** in the seventh layer of the first slot **51** are linked by the second coil end portion **10f**, and the third rectilinear portion **10c** in the seventh layer of the second slot **52** and the fourth rectilinear portion **10d** in the eighth layer of the third slot **53** are linked by the third coil end portion **10g**, to constitute a 6-shaped coil pattern.

[0045] Thus, a winding body **10** is configured by winding a conductor wire **9** into a first slot **51**, a second slot **52**, and a third slot **53** that line up at an angular pitch of six slots circumferentially, so as to repeat for two iterations in a radial direction a 6-shaped coil pattern that is formed by inserting the conductor wire **9** sequentially in order of the second slot **52**, the first slot **51**, the second slot **52**, and the third slot **53** so as to alternate an axial direction of insertion into the first slot **51**, the second slot **52**, and the third slot **53**.

[0046] The winding body **10** is configured by linking the two 6-shaped coil patterns using a linking wire **11** so as to be arranged into two layers in a radial direction. In other words, the winding body **10** is produced by winding the conductor wire **9** in such a way that the two 6-shaped coil patterns become continuous.

[0047] A single winding body **10** is similarly mounted into a second slot **52**, a third slot **53**, and a fourth slot **54** that line up at an angular pitch of six slots circumferentially. This winding body **10** is configured such that a conductor wire **9** is wound so as to repeat for two iterations in a radial direction a 6-shaped coil pattern that is formed by inserting the conductor wire **9** sequentially in order of the third slot **53**, the second slot **52**, the third slot **53**, and the fourth slot **54** so as to alternate an axial direction of insertion into the second slot **52**, the third slot **53**, and the fourth slot **54**.

[0048] A single winding body **10** is similarly mounted into a third slot **53**, a fourth slot **54**, and a fifth slot **55** that line

up at an angular pitch of six slots circumferentially. This winding body **10** is configured such that a conductor wire **9** is wound so as to repeat for two iterations in a radial direction a 6-shaped coil pattern that is formed by inserting the conductor wire **9** sequentially in order of the fourth slot **54**, the third slot **53**, the fourth slot **54**, and the fifth slot **55** so as to alternate an axial direction of insertion into the third slot **53**, the fourth slot **54**, and the fifth slot **55**.

[0049] Thus, the three winding bodies **10** are mounted to the stator core **3** so as to share the third slot **53**. Eight first through fourth rectilinear portions **10a**, **10b**, **10c**, and **10d** are housed inside the third slot **53** such that the longitudinal directions of the long sides of the oblong cross sections of the conductor wires **9** are oriented circumferentially so as to line up in single columns in a radial direction.

[0050] Forty-eight winding bodies **10** that are configured in this manner are arranged concentrically at a pitch of one slot to produce the winding assembly **7** that is shown in FIG. **8**. At a second axial end of the winding assembly **7**, a layer of first coil end portions **10e** in which the first coil end portions **10e** are arranged circumferentially at a pitch of one slot and a layer of third coil end portions **10g** in which the third coil end portions **10g** are arranged circumferentially at a pitch of one slot are arranged alternately in four layers in a radial direction to constitute first coil ends **6a**. At a first axial end of the winding assembly **7**, a layer of second coil end portions **10f** in which the second coil end portions **10f** are arranged circumferentially at a pitch of one slot and a layer of linking wires **11** in which the linking wires **11** are arranged circumferentially at a pitch of one slot are arranged alternately in three layers in a radial direction to constitute second coil ends **6b**. Moreover, insulating papers **19** are disposed inside the first and second coil ends **6a** and **6b** to ensure electrical insulation between the winding bodies **10**.

[0051] End portions of the first terminal wires **10h** each extend axially outward from a radially inner side of the second coil ends **6b**, and are arranged circumferentially at a pitch of one slot, and end portions of the second terminal wires **10i** each extend outward in an axial direction that is identical to that of the first terminal wires **10h** from a radially outer side of the second coil ends **6b**, and are arranged circumferentially at a pitch of one slot.

[0052] Shapes of the first and second terminal wires **10h** and **10i** of the winding bodies **10** will now be explained using FIGS. **3** through **6**. The first terminal wires **10h** that extend outward near the second coil ends **6b** from the first rectilinear portions **10a** in the first layer of the second slots **52** are formed so as to extend toward the first slots **51** circumferentially at an angle of inclination  $\theta$  and be bent at vertex portions (intermediate positions between the first slots **51** and the second slots **52**) to extend axially outward. The second terminal wires **10i** that extend outward near the second coil ends **6b** from the fourth rectilinear portions **10d** in the eighth layer of the third slots **53** are formed so as to extend toward the fourth slots **54** circumferentially at an angle of inclination  $\theta$  and be bent at vertex portions (intermediate positions between the third slots **53** and the fourth slots **54**) to extend axially outward.

[0053] Thus, the circumferential positions of the end portions of the second terminal wires **10i** that protrude axially outward from the winding bodies **10** in which the first rectilinear portions **10a** are housed in the second slots **52** align approximately with the circumferential positions of the end portions of the first terminal wires **10h** that protrude